REMARKS

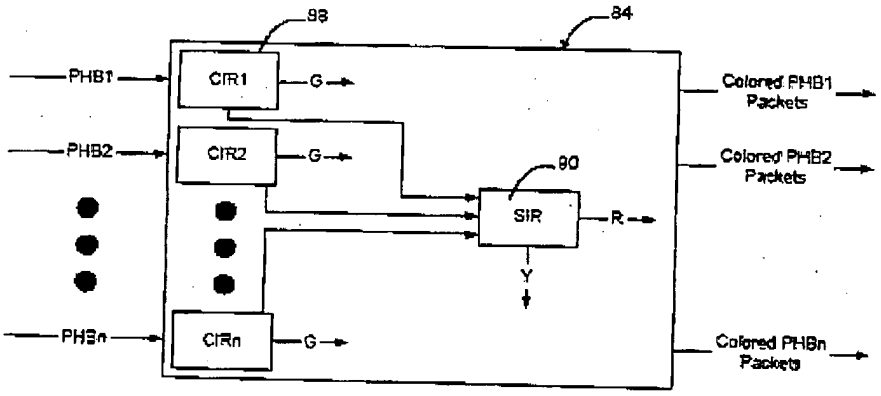
Reconsideration of the rejections set forth in the Office Action is respectfully requested. Currently, claims 1-6, 8-15, and 17-18 are pending in this application.

Rejection under 35 USC 103

Claims 1-7 and 9-18 were rejected under 35 USC 103 as unpatentable over Gandhi. (U.S. Patent Publication No. 2005/0120102) in view of Blake ("An Architecture for Differentiated Services," IETF RFC 2475). This rejection is respectfully traversed in view of the following arguments.

Figure 5 of this application has been reproduced below for convenience. This figure is described in greater detail in Paragraph 50 of the specification as originally filed.

Figure 5



As shown in Fig. 5 and as described in Paragraph 50, the meter 84 is used to meter packets onto a port. The meter 84 includes a Committed Information Rate (CIR) token bucket 88 for each PHB to be metered, which allows the committed information rate for each PHB to be specified individually on the port. Additionally, the meter 84 includes a Surplus Information Rate (SIR) token bucket 90 that is used to commonly meter excess traffic from each PHB so that each PHB may share the surplus bandwidth on the port.

Independent claim 1 recites a method of allocating bandwidth at a network element, including metering first traffic to ascertain first in-profile traffic for a first PHB and metering second traffic to ascertain second in-profile traffic for a second PHB. Claim 1 further recites

commonly metering first traffic that has not been ascertained to be first in-profile traffic with second traffic that has not been ascertained to be second in-profile traffic to ascertain commonly metered traffic using a third common token bucket. This portion of claim 1 further recites that the ascertained commonly metered traffic is a portion of the first traffic that has not been ascertained to be first in-profile traffic and a portion of the second traffic that has not been ascertained to be second in-profile traffic for which there is sufficient tokens in the third common token bucket.

Independent claim 11 recites a packet meter, including a PHB classifier, and a meter. Claim 11 further specifies that the meter includes a separate in-profile token bucket for each PHB to meter in-profile packets on a per-PHB basis, and a common token bucket to meter out-of-profile packets for multiple PHBs collectively.

As is clear from these two claims and Fig. 5, in this application different flows of data are individually metered using their own committed information rate bucket. However, where there is surplus traffic, all of the surplus traffic is grouped together and collectively metered using a common surplus traffic bucket. By metering all of the excess traffic (from all of the various flows) collectively, the flows may all share the available excess bandwidth in a fair manner.

Gandhi does not teach or suggest metering surplus traffic from each of the PHBs collectively. In the "Response to Arguments" section of the Office Action, the Examiner indicated that the claims were rejected based on the embodiment of Gandhi shown in Fig. 3. For convenience this figure of Gandhi has been reproduced below:

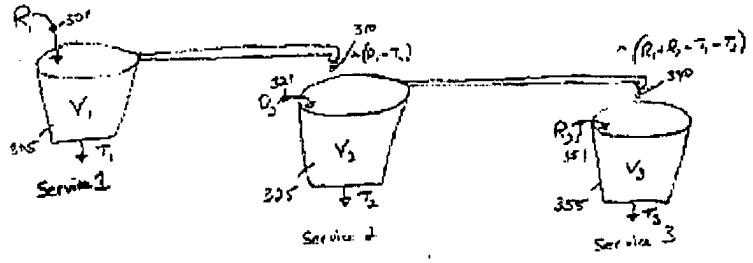


Fig. 3

This figure is described by Gandhi for example at Paragraphs 46-49. Specifically Gandhi states in Paragraph 46 that "token bucket 305 controls a first type of service (e.g., voice information), token bucket 325 controls a second type of service (e.g., mission-critical data) and token bucket 355 controls a third type of service (e.g., best-efforts data)." Thus, according to Gandhi, each of the buckets (305, 325, 355) is used to control one type of service on the network and to meter packets belonging to that service. None of these three buckets is used to meter surplus traffic from the other buckets.

Gandhi teaches that there are times when there will be little or no traffic of a particular type. In this case, excess tokens that don't fit into the token bucket will overflow into one of the other token buckets. However, once a token is placed in a bucket, it can only be used to meter a packet from that particular service. (Gandhi at Par. 47). Gandhi uses the overflow system to overflow tokens so that excess bandwidth on the network may be hierarchically allocated to the services (Gandhi at Par. 34). Thus, the extra tokens would first be placed in bucket 305, then used to fill bucket 325 and then used to fill bucket 355. However, the fact that the first service 305 receives tokens preferentially over the other two services does not mean that the other buckets are being used to transmit overflow traffic from the first bucket. Rather, each token bucket is used to meter traffic in that service class.

Thus, although Gandhi shows a system in Fig. 3 that has three token buckets, the three token buckets in Fig. 3 are all Committed Information Rate buckets, each of which is used to meter a particular service (voice information, mission-critical data, or best-efforts data). Tokens overflow between buckets to allocate extra bandwidth on the network, but packets within a particular service class are only metered from their respective token bucket.

In the previous response applicants discussed Fig. 4 in some detail because Fig. 4 shows the interrelationship between CIR/PIR in Gandhi's system. Those remarks are incorporated herein by reference. Fig. 6 amplifies how the two token bucket system of Fig. 4 works where there is more than one service being metered. For convenience, Fig. 6 of Gandhi is shown below:

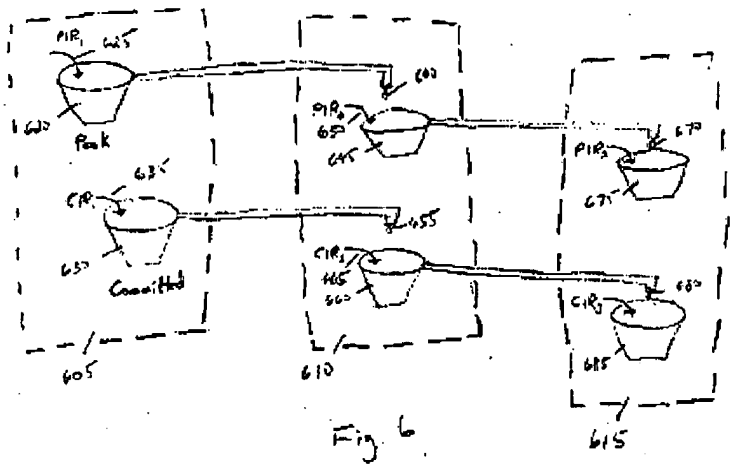


Fig. 6

Gandhi discusses this figure for example at paragraphs 63-65. In Paragraph 63, Gandhi states that this figure shows three different service types 605, 610, 615. Gandhi gives examples of the types of services and explains that "service 605 may be mission-critical data, service 610 may be video and service 615 may be for best-efforts data." Thus, in Fig. 6 like in Fig. 3, Gandhi shows three services that are arranged to receive tokens in a hierarchical manner such that tokens flow into the token bucket of the first service, and overflow tokens from the first service are passed to the other services.

However, Fig. 6 of Gandhi is further illuminating as to how the packets are being handled, since Fig. 6 shows that each of the services may be metered using a two token bucket system. Specifically, as described by Gandhi in Paragraph 64, each service has its own PIR and CIR buckets. Thus, in Fig. 6, like in Fig. 3, Gandhi shows that each service is metered separately.

To show that a claim is not anticipated by a reference, applicants are only required to show how one feature of the claim is not taught by the reference. Looking at claim 1, applicants respectfully submit that Gandhi fails to teach or suggest "commonly metering first traffic that has not been ascertained to be first in-profile traffic with second traffic that has not been ascertained to be second in-profile traffic to ascertain commonly metered traffic using a third common token bucket." Fig. 3 of Gandhi does not teach or suggest this limitation, since each of the token buckets (305, 325, 355) are used to meter a separate service (labeled Service 1, Service 2, and Service 3 in Fig. 3). When there is insufficient traffic, tokens will overflow between the buckets.

However, if there is surplus traffic for one or more of the services – meaning that there is too much traffic to be passed using the buckets for those particular services, the traffic may be discarded (Gandhi at Par. 17). Accordingly, Fig. 3 does not teach or suggest that surplus traffic from two or more of the services (305, 325, 355) should be commonly metered using third common token bucket. Thus, applicants request that the rejection of claim 1, and those claims dependent thereon, be withdrawn.

With respect to claim 11, applicants respectfully submit that Gandhi fails to teach or suggest "a common token bucket to meter out-of-profile packets for multiple PHBs collectively." Accordingly, applicants respectfully request that the rejection of claim 11 be withdrawn.

Rejection under 35 USC 103

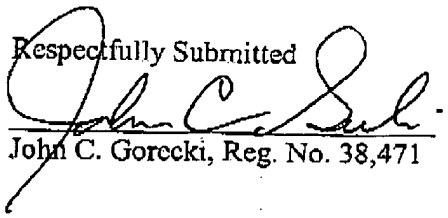
Claim 8 was rejected under 35 USC 103 as unpatentable over Gandhi in view of Balachandran (U.S. Patent Application No. 2004/0208183). Claim 8 depends on claim 1 and is therefore patentable for at least the reasons noted above. Accordingly, applicants respectfully request the Examiner to withdraw the rejection of claim 8 under 35 USC 103.

Conclusion

In view of foregoing remarks, it is respectfully submitted that the application is now in condition for allowance and an action to this effect is respectfully requested. If there are any questions or concerns regarding the amendments or these remarks, the Examiner is requested to telephone the undersigned at the telephone number listed below.

If any fees are due in connection with this filing, the Commissioner is hereby authorized to charge payment of the fees associated with this communication or credit any overpayment to Deposit Account No. 502246 (Ref: NN-16234).

Respectfully Submitted



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